

Religion and Crime: A Systematic Review and Assessment of Next Steps

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Over the last twenty years researchers have given a lot of attention to the relationship between religion and crime, finding that religion tends to have a deterring influence on crime-related attitudes and behaviors. While a variety of studies have been published in this area, little work has been done to assess the state of research on religion and crime. Because so much research has consistently found a relationship, work on religion may be able to offer fresh insight into criminological theory and substantive research more generally. This study fills a gap in current understanding by conducting a systematic review of empirically-based journal articles published between 2004 and 2014. The analysis, which assesses qualitative and quantitative studies, offers theoretical and empirical insight into what religion brings to the study of crime, and vice versa. The results focus on the data sources, methods, theories, and journals used in producing research on religion and crime. The findings highlight the most popular theoretical perspectives, which include religious contextual effects, social control, and social learning, as well as the least popular ones. Insight into the strengths and weaknesses of current research on religion and crime is provided, as is direction for future research into this innovative area of research.

Key words: deviance; methodology; quantitative methods; violence/terrorism.

Hirschi and Stark's (1969) landmark work, "Hellfire and Delinquency" is usually credited for launching empirically based work on the religion and crime relationship. They examined the relationship between religion and crime for over 4,000 California youth. Contrary to expectations, Hirschi and Stark found that frequent church

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attendees and students who believe in the Devil and in life after death were as likely to commit delinquency as people who do not believe in a supernatural world.

Initially, few social scientists challenged their findings, but slowly studies (Albrecht, Chadwick, and Alcorn 1977; Higgins and Albrecht 1977) with conflicting results emerged. By focusing on the region where the data were being collected, Stark ultimately reconceptualized his original findings (Stark, Kent, and Doyle 1982). Instead of positing that religion has a limited influence on delinquency, Stark (1996) developed a theory of religious contexts. He argued that religion produces conformity to norms only as it is sustained through interaction and is accepted by the majority as a valid basis for action. These ideas produced the moral communities hypothesis, which has led to several studies examining how religious groups, regions, and nations may heighten the effect of personal religious beliefs to influence attitudes and behaviors (Regnerus 2003; Finke and Adamczyk 2008; Sturgis and Baller 2012; Welch, Tittle, and Petee 1991).

Since Stark's original research, a plethora of studies have examined the religion and crime relationship. While a lot of work has been done by sociologists of religion and criminologists, research on religion and crime remains a somewhat novel area of study. Many criminologists have not fully considered the importance of religion for studies on crime-related attitudes and behaviors. This may be surprising given that the vast majority of quantitative studies find a statistically significant association between religion and crime (Baier and Wright 2001; Weaver, Flannelly, and Strock 2004; Yeung, Chan, and Lee 2009).

While there have been a handful of reviews and meta-analyses summarizing research on religion and crime, these summaries largely rely on studies published many years ago and typically include only quantitative research. In addition to needing an updated understanding of the field, more sophisticated questions have emerged about the theories, data, and methods used in this research. For example, criminology and religion-related research tend to privilege different theoretical perspectives and we do not know what theories are most popular for explaining the religion and crime relationship. Likewise, it is unclear whether religion largely affects attitudes or behaviors, how the causal relationship is typically hypothesized, and the extent to which more sophisticated statistical techniques like mixed modeling and event history analysis are being used. It is also uncertain what unit of analysis is most often employed, especially in light of Stark's work on religious contextual effects.

This study fills a gap in our current understanding of research on religion and crime by conducting a mixed-methods systematic review of empirically based journal articles published between 2004 and 2014. Rather than conducting a single primary analysis using data from individuals, counties, or states to assess the relationship between religion and crime, we examine existing research that has been published during this 10-year period. Our goal is to understand how scholars are currently studying the link between religion and crime, what they are finding, and how to improve future research. The findings focus on the data sources, methods, theories, and journals used in producing current research. The results highlight the

most popular theoretical perspectives, which include religious contextual effects, social control, and social learning, as well as the least popular ones. We provide insight into the strengths and weaknesses of current work on religion and crime, as well as direction for future research into this innovative area of study.

PREVIOUS REVIEWS ON RELIGION AND CRIME

Over the last 25 years, there have been a handful of meta-analyses, and systematic and narrative reviews on the religion and crime relationship. This research largely focuses on three areas: the relationship between religion and crime, substance use, and faith-based programming. Further, we summarize previous work in each of these areas and note the limitations of these reviews. We also describe how the current study offers a more comprehensive and updated understanding of empirically based research on religion and crime.

The most recent studies that summarized work on religion and crime were completed 16 years ago (Johnson et al. 2000; Baier and Wright 2001). Like other research in this area, the findings show that religion is associated with less crime. Baier and Wright's (2001) meta-analysis of 60 studies published between 1969 and 1998, found that religious beliefs and behaviors exert a moderate negative effect on individuals' criminal behavior. Similarly, Johnson et al.'s (2000) systematic review¹ of the religiosity and delinquency literature analyzed 40 studies published between 1985 and 1997. They concluded that religion measures are usually inversely related to deviance with a higher proportion of more rigorous studies finding this relationship.

Similar to research on the religion and crime relationship, the three most recent reviews assessing the association between religion, substance use, and recovery, all find that religion negatively affected these behaviors. Chitwood, Weiss, and Leukefeld's (2008) systematic review of 105 studies published between 1997 and 2006 found a relationship between religiosity and reduced risk of substance use. Likewise, Weaver, Flannelly, and Strock (2004) reviewed the 29 studies published between 1990 and 2003 on the relationship between religion and adolescent tobacco use and found that the majority included at least one significant relationship between religion and tobacco use. In the most recent study of the religion and substance use relationship, Yeung, Chan, and Lee's (2009) meta-analysis of 22 studies published between 1995 and 2007 found that religion is usually associated with less youth involvement with substance use, most notably alcohol, cigarette, marijuana, and other illicit drugs.

¹Johnson and Jang (2010) published a more recent review in an edited volume. They explain that they conducted a "systematic review" of 270 articles between 1944 and 2010. However, they do not provide the information that is typically included in a systematic review, like information on the search engines or terms used, inclusion criteria, or coding of categories. Additionally, they do not provide any quantitative aggregated findings based on coding and analysis of the articles. Rather, they generally discuss qualitative themes in the existing literature.

Since many studies have found that religion often decreases or deters deviant behaviors and related attitudes, researchers and policy makers have begun investigating whether religion and religious organizations can foster recovery from substance abuse and assist in reintegrating offenders into their communities following incarceration. While religious organizations have long provided services to their communities, the federal government's 2001 Faith based and Community Initiative made it possible for religious groups to receive government funding to provide social services (Pipes and Ebaugh 2002). Johnson et al.'s (2000) narrative review of the effectiveness of 97 studies of faith-based initiatives on a variety of outcomes, including substance use and reintegration, found almost uniformly positive evidence that these organizations were more effective than secular ones in providing various services.

While the literature on religion and deviance has greatly expanded since Hirschi and Stark's (1969) classic study, the most recent reviews (Yeung, Chan, and Lee 2009) on religion and substance use examine work that is now nine years old. Similarly, the two most recent reviews (Johnson et al. 2000; Baier and Wright 2001) that focus on a wide range of criminal and deviant behaviors were published 16 years ago. Much has changed since then, including an increase in government-supported faith-based initiatives (Ebaugh, Chafetz, and Pipes 2005). Likewise the attacks of 9/11 occurred. The terrorists were all extremist/jihadists inspired by radical Islamist beliefs. The events prompted the U.S. government to provide more funding for terrorism-related research, which has contributed to an increase in related journal articles (Silke 2008; Silke and Schmidt-Petersen 2015). The combination of 9/11 being a high profile criminal event and religion being a major motivational factor make it relevant to the current review, which is being done more recently than others.

Previous reviews, mostly meta-analyses, have largely focused on whether religion is related to crime, deviance, and substance use and abuse. They all find an effect. This information was useful 10 years ago, when there was still some ambiguity about the religion and deviance relationship. Today, most religion and crime researchers know that there is a relationship. However, many more articles have now been published and important new areas of interest and additional theoretical perspectives have emerged that warrant the coding of new categories. Additionally, for understanding recent research on religion and crime, it is important to include qualitative studies that do not have effect sizes and are not typically part of traditional meta-analyses. Our analysis begins by examining the rationale implemented to assess existing work and discusses our methodology.

Systematic Review of Research on Religion and Crime

Most reviews analyzing research that has examined the relationship between religion and health, deviance, crime, and anti-social behaviors have conducted meta-analyses (Baier and Wright 2001; Weaver, Flannelly, and Strock 2004; Yeung, Chan, and Lee 2009). This method combines a sample or population of quantitative studies' results, increasing confidence in relationships and helping to resolve uncertainty when findings disagree. There have been some attempts at meta-analyses of

qualitative social science studies (Timulak 2009). However, the vast majority focus on quantitative studies where a statistical approach, such as mixed modeling, is used to summarize significance and effect sizes from individual articles. Most meta-analyses, including the ones mentioned above (Baier and Wright 2001; Weaver, Flannelly, and Strock 2004; Yeung, Chan, and Lee 2009), exclude qualitative studies.

An alternative² to meta-analysis is the systematic review. Both techniques summarize information from articles using procedures (i.e., quantitative coding, clear inclusion criteria) that are predefined, thus enhancing transparency, minimizing bias, and insuring that the findings can be replicated (The Campbell Collaboration, 2015). Unlike a meta-analysis, a systematic review typically does not summarize information on effect sizes. Conversely, with a systematic review, both quantitative and qualitative studies can be included in the same analysis (i.e., mixed method systematic review) (Hemingway and Brereton 2009). By conducting a mixed method systematic review of journal articles published between 2004 and 2014, our results are consistent, reliable, and inclusive of recent findings from qualitative and quantitative studies.

METHODOLOGY

To identify articles that examine the role of religion in shaping crime-related issues in published research, we use two research databases, “SocINDEX” and “Criminal Justice Abstracts.” Initially, we considered examining several other databases, including PsycINFO, Criminal Justice Periodical Index, SCOPUS, and Worldwide Political Science Abstracts. However, we used SocINDEX and Criminal Justice Abstracts for several reasons. First, including all these search engines generated too many articles that were not directly related to the role of religion and crime. Second, both databases are available through EBSCOhost and that increases internal and external reliability so that the findings can be replicated. Lastly, these two databases offer the most extensive coverage of sociological, criminal justice, and criminology studies (EBSCO 2016) that capture the research focusing on religion and crime.

We focus on studies published between January 2004 and December 2014. There are a number of reasons why we selected this 10-year time period. To begin, we needed a long enough period so that we could gather a reasonable number of articles to assess the state of research. Likewise, the coding of each article was not done electronically. Rather, a researcher read each article and then determined how to code the relevant pieces of information. The number of articles under examination could not be so large that we would have to seriously reduce the amount of attention given to each one or limit the number of coding categories. Our preliminary analysis

²An alternative to both systematic reviews and meta-analyses are narrative or expert summaries (DiIulio 2009), which are typically seen as much more limited because the analysis is not systematic, transparent, or easily replicable.

suggested that the 10-year period yielded approximately 100 articles, which we felt our team could reasonably code. Additionally, the two most recent quantitative meta-analyses and reviews that focused specifically on religion and crime were done by Baier and Wright in 2001 and Johnson et al. in 2000. Neither of the studies examined more than 60 articles. Hence, with 100 articles we assessed substantially more articles.

We began our analysis in 2004, so that we would cover a time period that previous reviews and meta-analyses on religion and crime had not yet examined. Additionally, enough time³ would have passed since 9/11 to capture any new research that was now focusing on religion and crime because of the government's interest in and increased funding support for terrorism-related research. Finally, we wanted two separate years on which to test our coding instrument. Preferably, the test years would be several years apart in case research had substantially changed, which could affect our analysis. To test our coding instrument we used 2003 and 2015. We started working on this review in December 2015, so we were unable to include 2016 or 2017. With these two years, we were able to test our coding instrument on the year before and after the 10-year period of examination.

Our examination focuses only on peer reviewed scholarly journal articles published in English during the 10-year time period. There are a number of reasons why we focus on journal articles. To begin, we wanted to assess the state of published research on religion and crime. While some sources of information, such as social media, may inform people about academic studies, journal articles provide some of the most comprehensive primary sources on completed research. Additionally, our search engines were more consistent in generating journal articles than they were books, book chapters, and reports. We wanted to be as systematic and transparent in our selection of studies as possible so that other researchers could replicate our process. Likewise, in our preliminary review, we found that many books and book chapters were not focused on a specific study, but rather tended to reference many different studies, only some of which presented original research. This introduced a lot of complications to our coding scheme. Finally, when books focused on a specific study, we found that the authors had often published a journal article with very similar findings. Importantly, journal articles continue to be the leading publication avenue across the social sciences. Our strategy is consistent with other recent scientific review efforts, such as Harris, Simi, and Ligon (2016), Hunter and Leahey (2008), Larsen and Marku (2010), and Pincus and Henderson (1993) that also restricted their reviews to journal articles.

There is a chance that by including other published and unpublished documents, our findings would change. However, because of the overlap between

³The amount of time between when researchers begin their studies and the year their findings are published in peer reviewed journals can take three or more years. For example, Baier and Wright (2001) published their review in 2001, but 1998 was the last year they used for their collection of articles. Likewise, Johnson et al. (2000) published their systematic review in 2000, but their last year of data collection was 1997.

studies published in books and articles, and the many more journal articles that have empirically based results we anticipate that the findings would share a lot of similarity. Another concern we had with focusing only on published works was the “file drawer” problem. This is the bias introduced by including only published studies, which tend to neglect negative or nonconfirmatory findings. Like other systematic reviews and meta-analyses, the file drawer problem remains a concern because we do not include unpublished studies. Despite this limitation, we are able to go further than other reviews by analyzing both quantitative and qualitative journal articles, examining a greater number of studies, and providing a systematic rather than a narrative review.

Our search terms consisted of two sets of stems: (1) “relig” (e.g., religion, religious, religiosity, etc.) or spiritual (e.g., spirituality, spiritualism, etc.) or “faith”; and (2) articles with terms starting with “crim” (such as crime, criminality, etc.) or “delinq” (including delinquency, delinquent, etc.). We searched all titles and abstracts for these terms, and identified 549 journal articles (i.e., SocINDEX = 309 and Criminal Justice Abstracts = 240). We initially considered including more specific crime and delinquent behavior-related terms such as homicide, rape, robbery, burglary, drinking, smoking, drug, etc. as well as religion-related terms including Catholic, Muslims, Protestant, and church. However, a preliminary analysis showed that by including specific types of crimes or deviant behaviors, we would have 656 articles or more even if we just include articles containing the search terms only in the title. Because of the close attention given to each article, we needed to balance having a large enough population of articles to reasonably assess the state of research, while at the same time not having so many articles that we would have to use a sample instead of a population, would have to eliminate some of the coding categories, or would be unable to thoroughly and carefully review each article. The most recent meta-analysis and systematic reviews on the general crime and religion literature (Johnson et al. 2000; Baier and Wright 2001) include somewhat similar search terms, providing some consistency between our study and this previous work. Additionally, by examining attitudes and behaviors related to illegal acts, as opposed to deviant behaviors, we had a more clearly defined sample that carried the universal characteristic of having legal codes against it.

We removed 149 articles from the analysis because they were duplicated within a single database or between the two different databases. We also excluded journal articles that did not include qualitative or quantitative data collection methods. Thus, we include not only journal articles that use statistical analysis, but also articles that use nonstatistical techniques such as case studies, ethnographic studies, and in-depth interviews. While commentaries, law reviews, theoretical papers, literature reviews, research notes, and essays can provide a great deal of valuable information, our study was focused on empirically based research studies where we would be quantitatively coding influences and outcomes related to religion and crime. A preliminary analysis showed that none of the commentaries, law reviews, theoretical papers, literature reviews, research notes, or essays that we

found had these measures. We, therefore, excluded these 220 articles. Additionally, 87 articles that were not directly related to crime and religion (even though our search terms appeared in the titles and abstracts of the journal articles) were removed.⁴ This screening process yielded a total of 92 articles.

Our initial coding instrument was developed with an orientation toward understanding the factors that would help us assess the current state of research. These areas included data, methods, measures, theories, datasets used, population, time use, and journals publishing this work. As our data were coded by human observers, it is crucial to have a reliable coding instrument (Hayes and Krippendorff 2007). A number of previous studies have set a precedent of assessing the coding instrument's reliability by using subsets of studies published before and/or after those in the sample (Brown, Upchurch, and Acton 2003; Lombard, Snyder-Duch, and Bracken 2002; 2005). Since the type of work being published can change over time, examining articles before and after the target period increases the reliability of the coding instrument. Consistent with this previous work, we also pretest the coding instrument in a pilot test of a representative subset of articles using the same search parameters as the full sample, but examining articles published one year before (i.e., 2003) and after (i.e., 2015) the target time period. After coding this subset, our two coders compared and discussed the results, making changes to the coding instrument. These steps were repeated until there was a high level of agreement regarding the coding instrument. Finally, one of two coders, who had been a part of the entire process of data collection, coded the complete set of 92 articles with the other team members reviewing the process and findings.

Sample Characteristics

Appendix A1 lists the 92 articles we analyzed over the 10-year period, along with the methodology, use of time (e.g., cross-sectional), general age of the sample (e.g., adults, adolescents), and the population of interest (e.g., criminal). The majority of studies (66 percent) relied on cross-sectional data from one point in time, though a substantial minority (20 percent) was part of a panel study, examining the same people over time. The remainder (6 percent) relied on cross-sectional longitudinal data. With our coding scheme we broke each sample into four groups: (1) adults; (2) adolescents; (3) both; and (4) geographic locations (e.g., counties). Adults in this study refer to college students over 18 years, while adolescents include people under 18 years and are mostly middle or high school students. In some studies, the parents of adolescents were also surveyed (e.g., Add Health). If the main focus of the article was not the parents but the adolescents, we coded the subjects as adolescents. When participants were selected regardless of their age,

⁴In the process of the screening, we found that the database (i.e., SocINDEX and Criminal Justice Abstracts) provided the different abstracts that were written by the authors of the articles in some cases. Because of this, although our search terms such as religion and crime appeared in the abstracts, these terms were not directly included in the analysis in the articles. We, therefore, removed these articles from our sample.

they were coded as both “adolescents and adults.” When only macro level entities such as countries, counties, or neighborhoods were used as units of analysis, the population of interest was coded as geographic locations. Forty percent of studies focused on adults and 27 percent examined adolescents. Only 14 percent of studies had samples that combined adults and adolescents, and 18 percent focused on differences across geographic locations (e.g., counties, states). Compared to adults, adolescents are more likely to engage in crime and are subject to status offenses, such as running away and underage drinking, which would justify why researchers tend to analyze adults and teens separately.

Finally, we assessed who was included in the sample. Over two-thirds of the articles (68 percent) focused on a general population (i.e., some were deviant and others were not), while only 23 percent examined a wholly criminal or deviant population (i.e., people in prison or under criminal justice supervision such as probation or living at halfway houses). Very few studies focused only on treatment groups such as people at a rehabilitation or treatment center due to health-related issues such as drug addiction and crime victimization. For instance, one study’s sample was recruited from a drug treatment center and their inclusion criteria did not require criminal history or background (Taieb et al. 2012). A small percentage of articles (2 percent) focused on both criminal/deviant populations and the general population and compared them. One of these studies was a comparison of college students and prisoners (Roberts, Gunes and Seward 2015), and the other study compared delinquent adolescents to nondelinquent teens (Moitra and Mukherjee 2010).

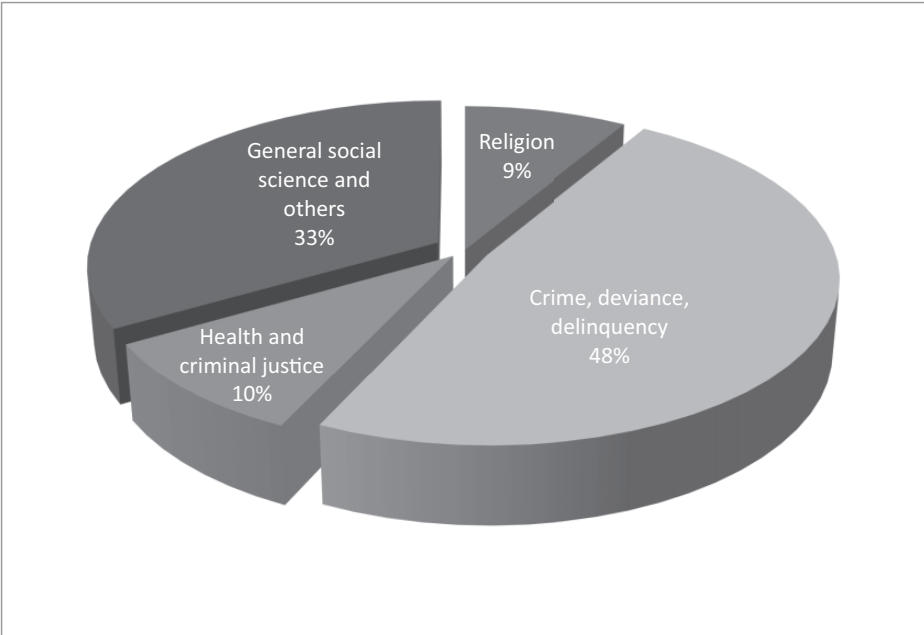
Journals

As this study is focused on assessing the state of research on religion and crime, we coded for the types of journals that are publishing this work. We were specifically interested in the extent to which articles were published more often in criminology versus more general social science journals, as well as the prestige of the journal, which would indicate the extent to which this research has entered the mainstream and social scientists are regularly seeing it.

Figure 1 presents a breakdown of the percentage of articles from each journal type, which was determined by the journal’s title.⁵ The largest percentage of articles (48 percent) was published in crime, deviance, and delinquency journals. *Criminology*, which is generally considered the leading criminology journal (*The American Society of Criminology* 2016) published three articles on religion and

⁵For instance, if the title contained religion related terms, it was coded religion (e.g., *Journal for the Scientific Study of Religion*, *Review of Religious Research*). If the title used crime-related terms such as crime, deviance, delinquency or justice, the article was classified as published in a crime-related journal (e.g., *Criminal Justice Studies*, *Deviant Behavior*). Titles with terms related to substance abuse or rehabilitation were coded as health and criminal justice (e.g., *Journal of Offender Rehabilitation*, *Journal of Child & Adolescent Trauma*). If journals contained terms such as social, society or sociology, they were coded as general social science (e.g., *The Sociological Quarterly*, *American Journal of Sociology*).

FIGURE 1. Percentage of articles from each journal domain.
(N = 92)

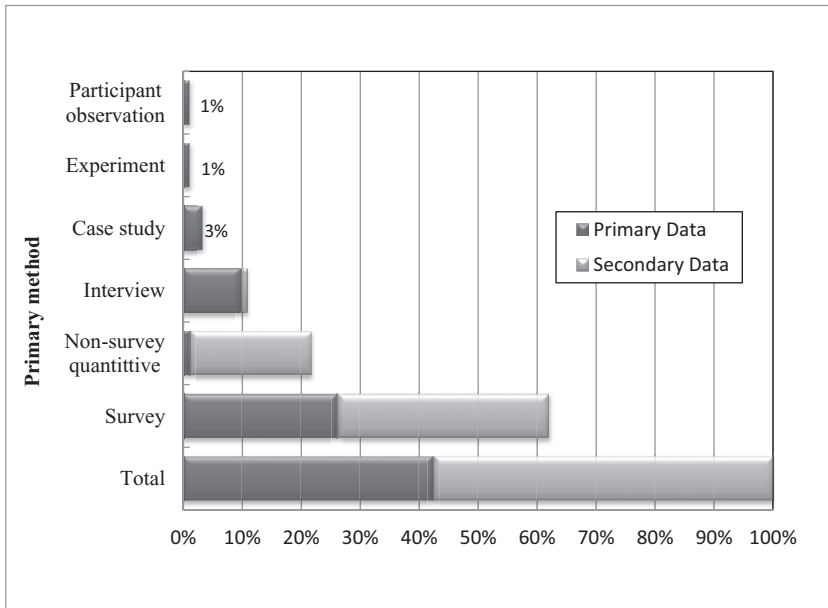


Note: Religion includes articles like the *Journal for the Scientific Study of Religion* and *Review of Religious Research*, crime includes journals like *Deviant Behavior* and *Criminology*, health includes *Substance Use and Misuse*, and general social science, and other journals include *Sociological Spectrum* and *Social Forces*.

crime (Giordano, Schroeder, and Seffrin 2008; Botchkovar, Tittle, and Antonaccio 2009; Jang and Franzen 2013). The two highest ranking sociology journals, the *American Sociological Review* (SAGE 2015) and the *American Journal of Sociology* (The University of Chicago Press 2012), each published one religion and crime article (McVeigh 2006; Petts 2009). Several regional sociology journals, including *Sociological Spectrum*, *Social Force*, and *Sociological Quarterly* published at least two articles on religion and crime during the 10-year period. These findings suggest that the most prestigious general social science and crime-related journals are publishing this work, and hence this research seems to have penetrated main-stream general social science journals.

There are a handful of journals devoted to the empirical study of religion. Over the 10-year period, these journals published eight religion and crime-related articles. Seven of them were published by the *Journal for the Scientific Study of Religion*, which is the official journal of the Society for the Scientific Study of Religion and one of the largest organizations of this type in North America. The *Review of Religious Research*, a more applied journal, published the other article (Regnerus and Smith 2005). Somewhat surprising, *Sociology of Religion*, the official

FIGURE 2. Dominant method used in article by primary or secondary data.
($N = 92$)



Note: There was one mixed methods study and the method that seemed most dominant in the study is included here.

journal of the Association for the Sociology of Religion, did not publish any articles on religion and crime. This analysis suggests that not only has some of this work reached the most prestigious and widely read journals, but it is also being published in some religion specialty journals, though not all of them.

METHODS USED IN ARTICLES

All of the articles in our study use a qualitative or quantitative social science research method. Hence, we were able to code each article by the method used and whether the researchers collected original data (i.e., primary data) or analyzed previously collected data (i.e., secondary data). The following types of methods were coded as primary: interviews and qualitative coding of documents, participation observation, ethnography, focus groups, case studies, and experiments/quasi-experiments. Secondary data included survey and nonsurvey quantitative data (e.g., census and quantitative coding of documents).

Figure 2 presents the methods by whether primary or secondary data were used. There is one article where mixed methods were used. For this one article, the dominant method (i.e., surveys) is included in the table, so that all of the bars add

up to 100 percent. Approximately, 60 percent of articles used surveys. Twenty-two percent of articles used nonsurvey quantitative data, such as the Uniform Crime Report or U.S. Census. Combined, 84 percent of articles relied on either surveys or nonsurvey quantitative data. Only 11 percent of the articles used interviews and not surprisingly the majority of these studies engaged in original data collection. The remaining methods include participant observation (1 percent) (Bardi and Malfitano 2014), case studies (3 percent) (Gensheimer et al. 2010; Deol 2014; Yates 2014), and experiments (1 percent) (Smith, Rozzo, and Empie 2005). Finally, there is a very rough even split between articles that used secondary (58 percent) versus primary data (42 percent).

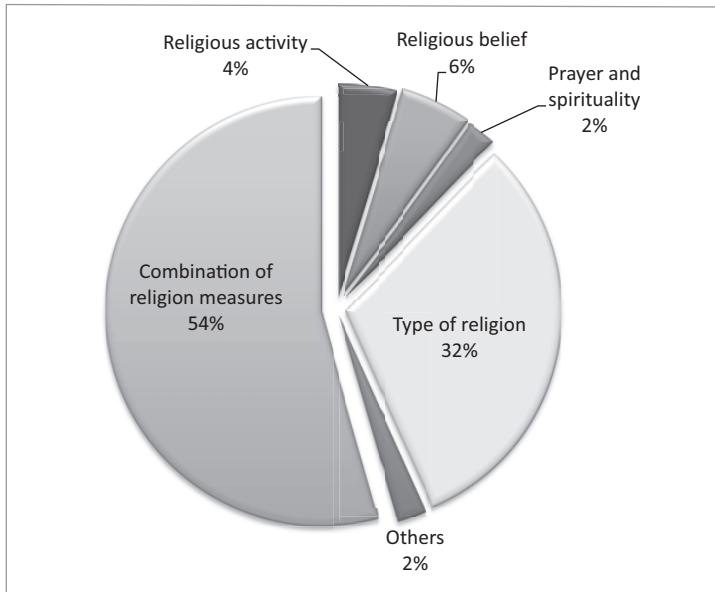
Religion and Crime Measures and Relationships

Religion is a challenging subject to study, in part, because determining what religion means to different people is tricky. There has been a lot of scholarly debate about which measures of religion are most appropriate and most likely to yield significant effects (Hill and Pargament 2003). Based on our preliminary reading of the articles, we coded six religious dimensions that we thought would be most prevalent: (1) religious activity (e.g., church or bible study attendance); (2) religious belief (e.g., importance of religion in life); (3) prayer and spirituality (e.g., consider themselves as spiritual, whether they pray); (4) type of religion (e.g., personal religious affiliation, religious identity); (5) others; and (6) combination of religion measures. When religion was measured using more than one dimension or a scale, it was coded as combination.

Figure 3 presents the proportion of both quantitative and qualitative studies in our analysis that relied on various religion measures. The most common way of assessing religion is through a combination of measures (54 percent). This is followed by type of religion (32 percent), which includes religious affiliation (e.g., Muslim) or categorizing denominations (e.g., Lutheran, Southern Baptist) into groups like conservative Protestant. A separate analysis shows that the majority of studies that use aggregate or macro-level data included only type of religion (e.g., affiliation). In contrast to macro (e.g., county or state) measures of religious involvement or strength of religious belief, it is easier to access macro measures on the dominant religious group or denomination in a county, state, or region. Many of the quantitative studies that included macro-level data use the well-known Religious Congregations and Membership Study, which are cross-sectional longitudinal data available for free online (e.g., www.TheARDA.com) and provide county-level estimates of religious bodies in the United States. There are no easily obtainable similar measures for strength of religious belief or involvement at the macro level,⁶ which could explain why type of religion is the most commonly used single measure.

⁶There have been some creative ways to assess religious belief and strength, such as aggregating individual-level data from the American National Election Survey or General Social Survey to a geographical units like counties. However, the identifiers for both of these surveys require payment and computer and office security restrictions, as well as a lengthy Institutional Review Board process. Even then, the number of counties is quite small.

FIGURE 3. Religious dimension used in qualitative and quantitative studies.
($N = 92$)



Note: If an article included more than one dimension, then a combination of religion measures was indicated.

We suspected that when multiple dimensions of religion were used, researchers would find a higher percentage of significant relationships. We coded statistical significance for the 78 quantitative articles (85 percent) in the study. We coded a study as “significant” if it found a statistically significant relationship between at least one crime and/or religion-related independent variable and one crime and/or religion-related dependent variable. Consistent with previous work, 98 percent of studies that used a multidimensional measure of religion found at least one statistically significant relationship between religion and crime. If researchers were not using a combination of measures, then religious involvement, belief, and type of religion tended to be used. However, fewer articles with just one of these measures resulted in a significant relationship with crime.

Of articles that include multiple religion dimensions a higher percentage are likely to find a significant effect because the measures are more nuanced and comprehensive, capturing both attitudinal and behavioral dimensions. For example, in 2014, 71.5 percent of Americans reported a religious affiliation (i.e., almost all Christian), but only 36 percent said they attended religious services once a week and 30 percent said they rarely attended ([Pew Research Center 2015](#)). Hence, focusing on, for example, only religious affiliation may not adequately capture the various ways religion shapes criminal, deviant, and delinquent attitudes and behaviors. Additionally, it is difficult to publish studies that have no statistically

significant findings. This may prompt social scientists to look harder for effects and discourage researchers from submitting religion and crime studies for publication that do not find a statistically significant relationship.

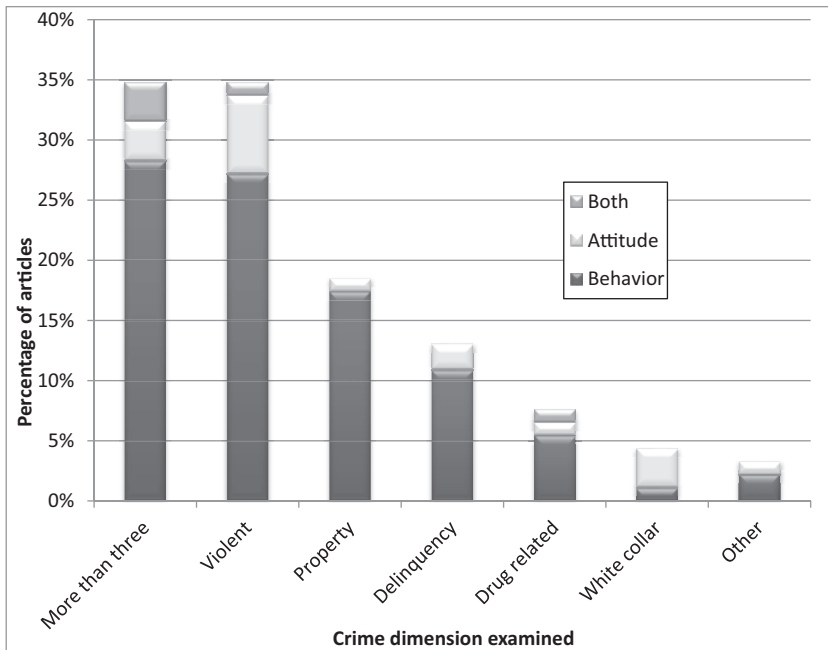
In our reading of the articles, we found that when multiple religion measures were used, they tended to focus on global ones, such as religious importance and attendance. While an improvement over the use of a single religion measure, one of the downsides of using a few different global measures is that the precise mechanism causing the relationship may be left unknown (Hill and Pargament 2003). Some researchers (often working outside of the crime field) have investigated more sophisticated religion-related concepts like spiritual striving (Emmons 1999)—where people feel like they have a sense of their ultimate destination in life and support convoys (Ellison and Levin 1998)—where over their life course people know that they can rely on a group of likeminded people who share a similar set of values and worldviews, even as those in the network change. To some extent these more sophisticated concepts may be included in static measures of religious importance and religious attendance. But, by relying on these global measures the precise mechanism producing the effect is unclear. Moreover, because researchers are finding a link between global religion measures and crime, they may be less inclined to unravel how different and more sophisticated dimensions of religion affect crime. There is a good reason to think, for example, that religious strivings may mitigate feelings of anomie, limiting the likelihood of crime-related behaviors. However, when a global religion measure, like religious importance, is used, the religion and crime relationship could be the result of a wide range of different processes.

Similar to religion, a high proportion of articles include multidimensional measures of crime. We coded for seven different dimensions of crime: (1) property crime; (2) violent crime; (3) delinquency; (4) drug- and substance-related crime; (5) white collar crime; (6) others; and (7) more than three.⁷ Each article could have addressed up to three different types of crime. A separate analysis shows that 50 percent of articles included more than one dimension and figure 4 shows that 35 percent included more than three dimensions.

Figure 4 demonstrates that when fewer than four dimensions are used, violent crime is the most popular category. Somewhat similar to the reason why type of

⁷Nonviolent criminal behaviors such as shoplifting and stealing were categorized as property crime, whereas crimes against persons such as burglary, murder, and rape were categorized as violent crime. Only status offenses committed by people under the age of 18 years, such as smoking, drinking, and running away, were coded as delinquency. Also, school policy violations such as drinking on campus among young adults (i.e., college students) were also coded as delinquency. Drug- and substance-related crimes included the use or sale of illegal drugs or substances, driving while intoxicated, and driving under the influence. Cybercrime was included under white collar crime, and when some crime-related behaviors could be legal or illegal depending on the location, such as homosexuality, gambling, and prostitution, they were categorized as “others.” If more than three different crime dimensions were used, it was coded “combined.”

FIGURE 4. Percentage of articles that used various crime dimensions by attitudes and behavior.
($N = 92$)



Note: Each article could have up to three different dimensions of crime, which is why the percentage does not add up to 100. When more than three were used, the article was coded as having more than three.

religion is the most popular single dimension of religion, information on violent crimes is freely and easily available from the Uniform Crime Report, as well as other macro datasets. Indeed, a separate analysis shows that of the articles that used nonsurvey quantitative data, 65 percent focused on violent crimes. Conversely, only 23 percent of the articles that used survey data and examined only one crime dimension focused on violent crimes (e.g., stealing large quantities of money). In part because violent crime is relatively rare, few survey respondents are likely to report it, leading to statistical analysis issues and fewer researchers asking about this crime dimension in surveys of individuals. Unless the sample consists of a high crime-prone group (e.g., prisoners, drug users), researchers tend to survey people about a range of different crimes (e.g., property and drug).

In contrast to surveys, interviews and case studies can be useful for studying smaller groups, including people who engage in violent crime, and the organizations (i.e., prisons, drug rehabilitation centers) in which they may be placed. While there are only 10 studies where interviews were the dominant method, 40 percent of them focused on violent crime. Likewise, of the three articles where case studies were the dominant method, two of them focused on violent crimes.

We also looked at whether attitudes about crime (e.g., “Is it okay to steal when you really need the money”) were examined, as well as behaviors (e.g., “In

the last 12 months, how many times have you shoplifted”) in both quantitative and qualitative studies. This is an important distinction, especially since previous behaviors tend to be a better predictor than attitudes of future behaviors. We determined that an article was examining attitudes if participants were asked about views on engaging in crime, either now or in the future, the likelihood of engaging in crime in the future, or feelings about crimes. If articles examined criminal behaviors or used statistical crime rates in an area, we coded them as focusing on behaviors.

In 78 percent of articles, researchers examined behaviors that actually occurred, with just 16 percent examining attitudes, feelings, or anticipation of future behaviors. In 5 percent of the studies, researchers examined both attitudes and behaviors. [Figure 4](#) shows the proportion of each type of crime dimension by attitudes versus behaviors. Perhaps not surprising a higher percentage of articles that examine violent and white collar crimes rely on attitudinal measures. This could be in part because fewer people are likely to have participated in major violent and white collar crimes (e.g., embezzlement) than other behaviors like shoplifting. A separate analysis also shows that 40 percent of interviews and 19 percent of surveys focus on attitudes. However, there were no articles that relied on nonsurvey quantitative secondary data and focused on attitudes, likely because nonsurvey quantitative secondary datasets, such as the Uniform Crime Report, are unlikely to have measures of attitudes and feelings, as opposed to behaviors.

Causality and Statistical Techniques

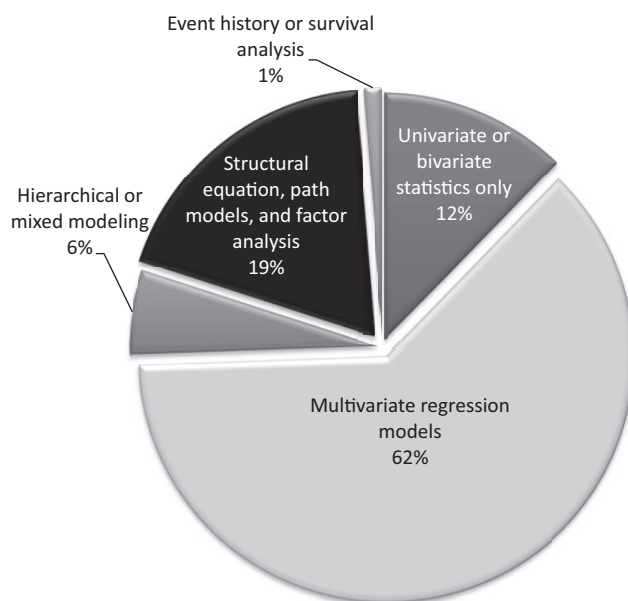
Previous reviews have been particularly interested in whether there is a statistically significant relationship between religion and crime ([Baier and Wright 2001](#); [Weaver, Flannelly, and Strock 2004](#); [Yeung, Chan, and Lee 2009](#)). All of them have concluded that there is a statistically significant relationship, mostly with moderate effect sizes. As noted above, we coded articles as being statistically significant when the p -value was less than or equal to 0.05. Like previous work, in the 78 quantitative studies included in our analysis, over 92 percent find a significant relationship between religion and crime. While it is useful to know what proportion of articles finds a significant relationship between religion and crime, even more valuable would be the establishment of causality. One of the few ways to establish causality is with an experimental design. Only one of the studies over the 10-year period we examined implemented an experimental design. Thus, the overwhelming majority of studies would have a lot of difficulty arguing that religion *causes* the crime-related outcome or vice versa. However, longitudinal studies can establish the correct causal ordering, making clear that the independent variable occurs after the dependent one. We found that 72 percent of articles used cross-sectional data at one point in time, 22 percent used longitudinal panel data, and 7 percent used cross sectional longitudinal data. While all of the panel and cross-sectional longitudinal studies found statistically significant relationships, only 87 percent of the cross-sectional single period studies yielded significant relationships.

Even though most of the quantitative studies we examined could not establish the correct causal order and much less assess causality, it is valuable to look at how researchers hypothesize the relationship between religion and crime. There is reason to think that the relationship between religion and crime-related attitudes and behaviors may move in either direction. Higher levels of religious belief and engagement could be conceptualized as leading to fewer criminal behaviors. Conversely, participating in crime could lead to some cognitive dissonance whereby individuals feel less connected with their faith and the larger religious community, leading to lower levels of religious belief and engagement. What relationship are researchers most likely to hypothesize? For 97 percent of the quantitative articles, the authors argued that religion is influencing the crime-related outcome. In only one study (Camp et al. 2006) did the researchers consider that criminal behaviors or attitudes could shape religious beliefs and behaviors. And in only one other study did, the researchers addressed a bidirectional relationship—religion influencing crime and vice versa (Heaton 2006).

In addition to assessing the use of longitudinal data and causality, we also coded the statistical techniques implemented in the 78 articles that used quantitative methods. We were interested in the extent to which researchers were drawing on various techniques and the extent to which their analyses extended beyond univariate and bivariate statistics, providing insight into the level of statistical sophistication. We coded each quantitative article for the following four types of sophisticated analysis techniques: (1) multivariate regression models (e.g., negative binomial, ordinary least square, logistic); (2) hierarchical or mixed modeling; (3) structural equation or path models that involve fitting networks of constructs of data; and (4) event history, survival, duration, and hazard models. If articles only used univariate or bivariate statistics, which we did not consider sophisticated, they were included in a separate category. While up to four different sophisticated analysis techniques could be used, no article implemented more than two.

Twelve percent of the articles included only univariate or bivariate statistics. The majority of articles (71 percent) drew on one type of sophisticated analysis technique and 15 percent drew on two. Figure 5 presents our findings of the percentage of articles that used each type of analysis technique. The univariate and bivariate category was reserved for the 12 percent of articles that only used this technique. Not surprisingly, the most common technique was multivariate regression (62 percent), followed by structural equation or path models (19 percent). The least used technique was event history or survival analysis, which only one article (Ryan, Testa, and Zhai 2008) implemented. Appearing in only 6 percent of articles, hierarchical or mixed modeling techniques were the second least popular. Both religion and crime are multidimensional concepts. One reason why structural equation or path modeling were somewhat popular, and used more than hierarchical or mixed modeling, likely has to do with researchers' interest in combining different survey questions into a single crime or religion dimension. The lack of studies that implemented event history or survival analysis is likely indicative of the lack of longitudinal data. However, there would seem to be some need for

FIGURE 5. Percentage of different statistical analysis techniques used.
(Article $N = 78$)^a



^aThe Univariate and bivariate category was reserved for articles that only used this type of technique. Since almost all of the other quantitative articles that used more sophisticated techniques also reported univariate and bivariate, we did not also code these as also using univariate and bivariate statistics.

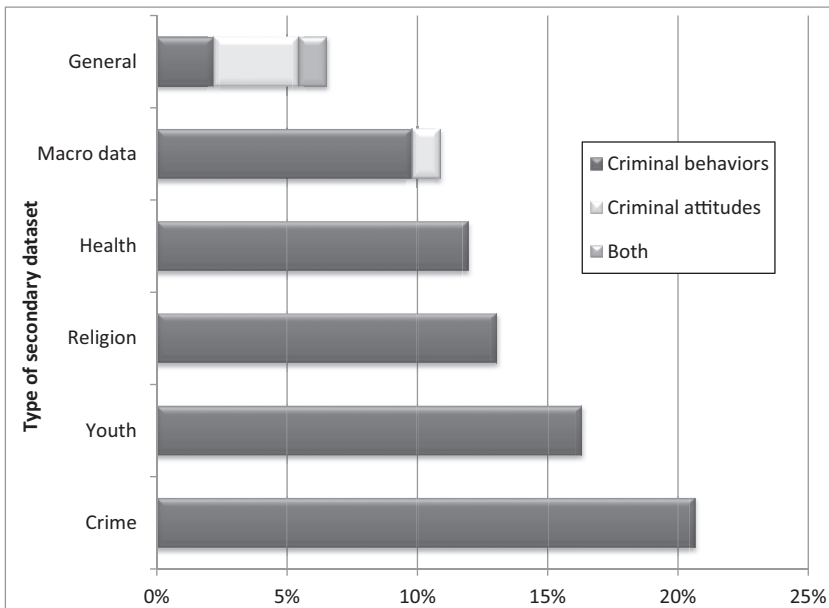
Note: Each article could have up to four different statistical techniques.

these techniques, such as investigating how religion affects retention or delays engagement in minor delinquency. Likewise, after engaging in crime, it would be interesting to see how long it takes before people who were religiously active to attend religious services again.

Secondary Datasets

As mentioned above about half of the studies in our analysis relied on secondary data, where someone, who is typically not the researcher writing the article, collects the data. Gathering data can be costly, and when more funds are available, the quality of the data often increases. A number of high quality datasets have been collected through collaborations with government agencies, universities, and organizations. Once completed these datasets are typically made publicly available online and through data depositories such as the Association of American Religion Data Archives, increasing their use and justifying the original cost. Because many researchers are likely to use these data, findings can be easily replicated and data errors corrected. However, if the same data are used repeatedly and some of the measures are limited, then this can skew greater understanding of the relationship between religion and crime.

FIGURE 6. Percentage of articles that used various secondary datasets by measures of criminal attitudes vs. behaviors.
($N = 53$)^b



^bIncludes only articles that use secondary data.

Note: Each article could have used up to three different datasets, which is why the percentage does not add up to 100. No article used more than three datasets.

What are the most popular datasets and in what areas do they tend to concentrate? Figure 6 provides a breakdown of the different types of datasets implemented in articles that used secondary data. The name of the secondary dataset (see Appendix A2) helped us determine the classification category (i.e., crime, youth, religion, health, macro data, and general). Our coding process was inductive, where we first isolated the names of all of the datasets in our study, and then began grouping them according to title and database contents. When we were unsure about how to categorize a given dataset we looked online for more information about the data. Most datasets contain information on a range of different issues. To provide meaningful categories we coded the datasets according to a single category that best represents their contents. For example, the National Longitudinal Study of Adolescent Health has survey questions on religion, health, and crime, as well as a variety of other issues. However, the initial intent of Add Health was to investigate the health of teens, so it is coded as a health dataset.

During the 10-year period under examination studies implemented 43 different datasets from a wide range of areas. The most popular type of dataset is crime related and the Uniform Crime Report (UCR) which was used in six articles, is the most popular in this category and the third most popular dataset overall. Being used in 17 percent of articles with secondary data, the overall most popular dataset is the U.S.

Census, followed by the National Longitudinal Study of Adolescent Health (Add Health) (15 percent), which is a survey of American adolescents. Since the first wave of data collection several follow-up surveys have been conducted, portions of which are available online. Following Add Health, the Religious Congregations and Memberships Survey (RCMS) is the third most popular, with seven articles (13 percent) using these data. Aside from the U.S. Census, Add Health, and RCMS, the following datasets had more than two articles using their data: UCR ($N = 6$) and National Longitudinal Survey of Youth ($N = 4$).

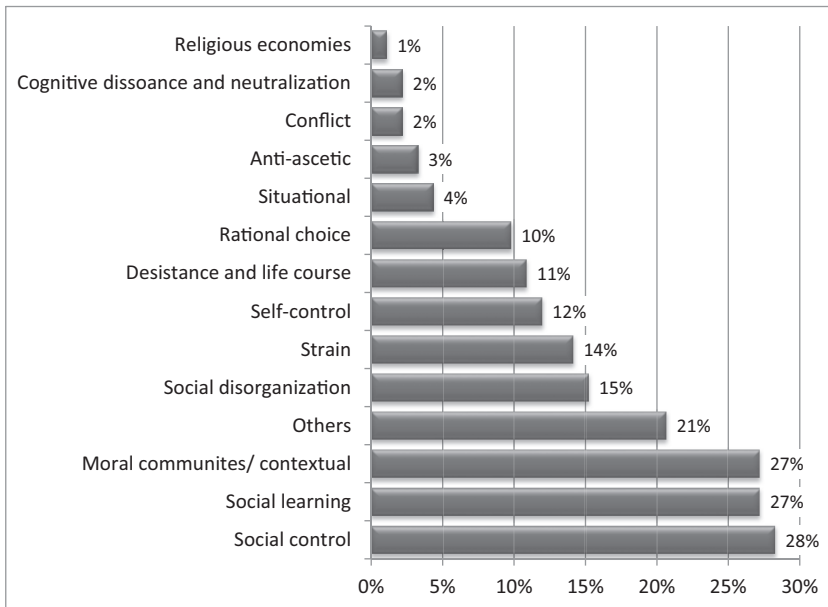
THEORY

Both criminology and the sociology of religion have developed a number of different theories to explain attitudes and behaviors. To our knowledge, no systematic review or meta-analysis has examined which theories are most popular for explaining the relationship between religion and crime. For understanding the state of the field, what seems to be missing, and where we might go from here, this information is particularly valuable. As we explain further, coding the theories in each article was a challenge.

Through a close reading, we found that a substantial minority of articles (16 percent) did not draw on any theory. In fact, there are a couple of reasons why 16 percent could be an undercount. Even though several studies did not explicitly state that they were testing a theory, they listed their independent variables in a table that had subsection titles indicating various theoretical frameworks (e.g., disorganization). Likewise, some articles only referenced a framework in two or three sentences. We generously coded these studies as using the theories indicated even though the conceptual model was not fully engaged. Finally, several authors discussed theories and explained that their research is theoretically informed, but their empirical analysis did not actually test or examine the theoretical processes specified and the findings were sometimes unrelated to the theories initially discussed.

To code the theories used in each article, we first came up with a list of major criminological and sociological theories that we anticipated would be found in the articles. Two coders then read several articles from 2003 to 2015, which is outside the time period of analysis, to determine if any additional theories should be included. To capture as many theories as possible we looked broadly, checking for the specific names of theories (e.g., anti-ascetic), as well as a description of theoretical processes (e.g., socialization), which matched a given theory (e.g., social learning). For the most part, the front part of each article provided the majority of information on the theories used to guide the study although as noted, sometimes the data and methods/analysis and conclusion sections provided added insight. We coded up to six theories for each article. For articles that used theory, the average number of different theories was 2.13. One coder first went through all of the articles using both a precreated coding scheme and looking for new theories. We

FIGURE 7. Proportion of theories used in articles where at least one theory was implemented.
($N = 77$)^c



^cIncludes only articles where it was determined that a theory was used to guide the study, even if the empirical analysis did not actually test the theoretical ideas.

Note: Each article could have used up to six different theories, which is why the percentage does not add up to 100. Secularization and biological theories were considered, but not found in any articles. When an article included two different types of the same theory, such as moral communities AND contextual, it was only counted once in the category. In other words, each article was only counted once for each theory category.

then had a second researcher code all of the articles. Discrepancies were discussed with team members, and the coding was revised accordingly. As we started with a list of theories from criminology and sociology, we are able to provide insight into the most popular theories, as well as information on theories that were not used. Figure 7 provides a breakdown of the proportion of articles that use each theoretical perspective. Articles that did not use any theory are excluded.

Figure 7 shows that two of the three most popular theories originate from criminology—social control (28 percent) and social learning (27 percent). Social control theory argues that individuals, who have more attachments with others and have achieved more and thus have more to lose, are less likely to offend. Anomic and adrift persons with few connections are more likely to offend. The premise of these ideas is that because many people are inherently aggressive, crime is natural unless society can bind us to it to promote conformity. Conversely, social learning emphasizes the blank slate view of human nature. This perspective argues that all behavior, including crime, is learned from others via imitation and reinforcement. Thus, persons exposed to family members and friends who offend or espouse criminal values are more likely to commit crime too. Both of these theories have a long

history and are among the most commonly used criminology frameworks to explain crime or delinquency. Conversely, low self-control theory (Gottfredson and Hirschi 1990) was used in only 12 percent of studies. Low control theory argues that most persons are born with low levels of self-control, and deviance is thus expected. To prevent crime, society (i.e., parents and schools) must “control” youths by socializing (via learning processes) them, and thus increase their level of self-control. The theory argues that this socialization process must occur before adolescence because after the age of 12 years or so one’s level of self-control is mostly static. Low self-control is also currently one of the most popular criminology theories and has been so since its creation, that is, 25 years ago. This obviously includes the 2004 to 2014 period.

On one hand, it is puzzling that low self-control theory was not used by more studies to shed light on the religion and crime relationship. It is, after all, currently one of the leading criminology theories. Gottfredson and Hirschi (1990) have argued that important attributes like military enlistment, marriage, and employment that have long been associated with higher levels of *social control* that decrease the likelihood of crime are actually spurious due to a selection effect. Persons with higher levels of *self-control* are more likely to join the military, get married, and obtain employment, and are also less likely to offend. These variables (e.g., unemployment, being single) associations with criminal behavior are thus actually due to the individual’s lower levels of self-control, as opposed to social control. It would be interesting to examine if similar dynamics are at play in the religious context. Are persons with lower levels of self-control similarly less likely to select into religion in the first place, due to say, their inability to focus on the services? Alternatively, researchers could study if low self-control persons are instead *more likely* to engage certain types of religious activities. Similar to sensation seekers low self-control persons may be more likely to attend “exciting” religious services, where the preacher is fiery and stresses eternal damnation, harsh punishments and hell, for instance (Ellis 1996).

The lack of attention to low self-control theory could be due to control oriented theorists instead employing social control theory. Intuitively, higher levels of religious belief and activity appear congruent with social control theory’s core concepts of attachment, commitment, belief, and involvement. People who are actively engaged with their religion are less likely to have time to participate in criminal pursuits. They may also be more attached to other religious adherents and committed to adhering to religious proscriptions that discourage criminal behaviors like stealing. Additionally, lack of the necessary data might also limit researchers’ ability to test low self-control theory in this context. It is challenging to collect data on children before the solidification of self-control. The influence of religion on crime in terms of self-control likely happens at that stage where social processes of religion differentially allow or predispose parents and others to set rules, monitor behavior, and enforce norms when they are violated.

Following social control and tied with learning, theories related to moral communities and contextual effects were used in 27 percent of articles that

implemented theory. As mentioned, Stark and colleagues argued that the level of religious belief amongst people within a given area, like counties or states, can heighten the effect of personal religious beliefs on deviant and criminal attitudes and behaviors (Stark, Kent, and Doyle 1982; Stark 1996; Stark and Bainbridge 1996). Being one of the most used theories, moral communities and religious contextual effects have strongly informed research on religion and crime. Interestingly, the moral communities' thesis is not regularly used by criminologists examining crime. Thus, the religion and crime literature's theoretical approach differs from mainstream criminology's. We elaborate on this point further.

Even though criminology has a rich literature focusing on contextual influences on crime, our findings show that the most popular studies on contextual approaches are from the sociology of religion field. Social disorganization, a leading criminology theory, was used by only 15 percent of the studies. Even fewer articles (4 percent) relied upon routine activities theory or situational approaches, which have also been important within criminology. Similarly, a separate analysis revealed that relatively few of the studies attempted to integrate the moral communities' thesis with macro-level criminology theories. Our category of moral communities was broad because it was mixed with contextual effects. Moral communities, as Stark lays it out, is about an interaction between personal beliefs and beliefs in the larger context (e.g., friends, counties, states, and countries). Strictly religious contextual effect studies investigate whether or not everyone, regardless of their religious attitudes, behaviors, or identification, is influenced by an area's higher level of religiosity.

As noted, low self-control theory would appear to be well positioned to speak to the religion and crime relationship. This theory also appears to fit well with biological approaches. Surprisingly, though biological and secularization theories were not used in any of the articles. Within criminology theories arguing that neurological, hormonal, and other biological factors may shape deviant behaviors have long been used and have received growing support (Moffitt, 1993; Piquero et al. 2010). Researchers have measured, for example, testosterone levels and implemented twin studies where the behaviors of identical (MZ) and fraternal (DZ) twins are compared (Mednick and Christiansen 1977; Rhee and Waldman 2002). Indeed, Ellis's (1996) arousal theory that draws upon both genetic and environmental factors was extended to explain why less religious persons are somewhat more criminal than more religious individuals. Arousal theory also appears consistent with low self-control theory. It argues that variation in offending and in religiosity could be caused by differences in individual brain functioning. Nonetheless, despite, Ellis's prominence, no study during the 10-year period examined, tested, or drew upon the arousal framework.

Within the sociology of religion, biological and physiological factors received attention during the 1990s and early 2000s. In 2002, Stark and colleagues published articles in the *American Journal of Sociology* and the *Journal for the Scientific Study of Religion* (JSSR) where they argued that women's greater religious engagement is related, in part, to higher levels of risk aversion (Miller and Stark 2002; Stark 2002). As Stark (2002) explains in his JSSR abstract, "Making the

assumption that, like crime, irreligiousness is an aspect of a general syndrome of short-sighted, risky behaviors leads to the conclusion that male irreligiousness may also have a physiological basis.” While both articles have received over 250 citations (Google scholar 2016), we did not find a single article in our analysis that implemented a biological approach.

In addition, and as noted, fewer religion and crime studies employ low self-control theory (12 percent of articles) than regular criminology works. It could be that trait theories like low self-control (and biological theories generally) are less attractive to sociologists who are reticent to attribute actions to individuals (Cullen 2011). Many sociologists may prefer to stress larger social and cultural processes which, could in turn, explain why the moral communities and contextual effects frameworks are more widely used.

Similar to biological theories, the secularization thesis was also missing from the studies we examined. Some sociologists of religion have embraced some of the secularization frameworks, especially scholars from Europe (Voas and Crockett 2005; Crockett and Voas 2006; Voas 2009). Compared to the United States, Western Europe has experienced more extreme declines in religious belief and engagement. The national or regional religious context may shape how sociologists of religion think about the development of religious belief. One version of the secularization thesis argues that when people begin to feel more physically secure (Inglehart and Baker 2000) and are exposed to different religions, they will start questioning their faith, eventually giving it up for a more “rational” understanding of the world (Berger 2011).⁸ We did not code for the origins of study populations. However, the overwhelming majority of articles that used secondary databases had American-based samples, which may have led to less interest in the secularization thesis. It is also possible that the secularization thesis does not speak to the religion and crime area very well because recently religion has begun declining in some places (a little in the United States, a lot more in Europe), while crime is regularly occurring. Further, the crime problem does not appear to have worsened because of the decline of religion in some places. If religion is changing or declining and yet crime rates are somewhat stable, then the question becomes whether or not some of the unique causal mechanisms of religion, which typically have a negative influence on crime, are being replaced with something equitable to fill the void of shifting religious belief.

The counterpart to secularization theory is rational choice and religious economics, where people are viewed as weighing the costs and benefits of religion, which is seen as a product embedded in an economy that has supply and demand (Iannaccone 1994, 1995; Finke, Guest, and Stark 1996; Stark and Finke 2000; Finke and Stark 2005). Figure 7 shows that only one article implemented a religious economies perspective (Shihadeh and Winters 2010). Appearing in 10 percent of articles, rational choice perspectives fared better, although it is unclear whether they are explaining religion or crime.

⁸Berger (1997) has since reversed his position on secularization.

Only four percent of studies (Eshuys and Smallbone 2006; Adamczyk 2012; Suresh and Tweksbury 2013) applied criminology's situational approach, which is mostly consistent with the rational choice perspective. Since the situational model stresses the immediate environment of crime, it may make sense that it overlooks religion that could be thought of as a more distal influence. But, recently situational approaches have recognized that cultural and ideological factors that are usually categorized as distal influences may also play an important role in a crime's opportunity structure due to their situational influences. Wortley (1996, 2002) has noted the situational influence of guilt, while Freilich and Chermak (2009) have discussed the immediate implications of ideological beliefs during political extremist interactions with police. Future research might consider the ways religious beliefs and practices impact offenders' actions during specific situations in terms of their crime prevention possibilities.

It is also intriguing that anomie/strain theories (Merton 1938; Agnew 1992; Messner and Rosenfeld 1994) that traditionally make up the third major criminology framework along with control and learning models were employed by only 14 percent of studies. In addition, despite the emergence of cultural criminology and other more radical approaches (Hayward and Young 2004) and the founding of journals like *Theoretical Criminology* and *Critical Criminology*, which are particularly open to these approaches, only two percent of the studies that used theory employed critical or radical theoretical approaches (Park, Morash, and Stevens 2010; Amato 2012). We also could not locate any studies that applied a feminist perspective to the study of religion and crime.

It is perhaps a bit of a cliché, but we wonder whether the more "leftist" "less traditional" critical and radical criminology approaches are simply less interested in religion and its effects on crime and deviance. Radical criminology, thus, may not be very open to the study of religion on crime. On the other hand, there may not be that many sociologists of religion, especially in the American context, open to a Marxist or critical perspective. The end result is that for different reasons neither criminologists nor sociologists of religion are investigating the relationship between religion and critical criminology approaches. That said, many sociologists do draw on critical approaches, and we cannot forget that in most locations in the world women are more religious than men and fewer of them typically participate in crime.

Only 11 percent of studies engaged life course theories or desistance frameworks. This too is surprising since even though it is a newer approach it has become increasingly prominent in criminology (Laub 2004; Sampson and Laub 2005). Religious influences would seem to be easily integrated into life course models. Similar to employment, peer networks, and marriage, a person's receptivity to religious messages and practices vary across their life cycle (Johnson and Jang 2012). Indeed, Cullen (2011: 156) recently concluded that "we need to develop an age-graded theory of religion and crime." Finally, barely a handful of studies (only 2 percent) employed neutralization techniques or cognitive dissonance perspectives. It is possible that cognitive dissonance is rarely used in part because almost every quantitative study hypothesized that religion affects crime. Only two

considered the opposite relationship where cognitive dissonance would seem like a perfectly reasonable theory to employ (Vogel and Fradella 2012; Ghuneim and Eisner 2013).

DISCUSSION AND CONCLUSION

This study systematically reviewed research on religion and crime that was published in social science journals over the last approximately 10 years. Sullivan and McGloin's (2014) recent essay noted that despite the importance of measurement issues to criminology generally, the field has overlooked these matters. They pointed out that criminology as a whole has relied on a small number of data sources. Sullivan and McGloin concluded that the field's analytic strategies and data limitations could "constrain measurement progress on the whole" (445). Here we explored whether this critique was also applicable to those studying the religion and crime relationship. We also thought it was important to consider the conceptual models scholars used in their studies. Thus, better understanding the data sources, methods, theories, and journals used in producing research on religion and crime should enhance the field's rigor and knowledge base. Our goal in this article was to provide theoretical and empirical insight into current research on religion and crime. We conclude by highlighting some important gaps that could provide direction for future research.

We found that the conceptual rigor of many studies examining the religion and crime association could be improved. Over 16 percent of studies did not employ any theory and as we noted, this is likely an undercount. While almost half of the published studies appeared in criminal justice journals, overall during this same period, very few of *all the studies* published in these same journals focused on religion and crime. Indeed, criminology has understudied religion compared to other factors such as the peer crime relationship, re-entry issues, gangs and crime, self-/social control, and economics and crime. Similarly, the leading criminology textbooks have tended to overlook the role of religion in understanding the etiology of crime (Cullen, 2012). There is thus room to develop and extend the sophistication of the theoretical frameworks that we found scholars most commonly use to examine religion and crime issues.

One key theoretical issue is that crime and religion could have a reciprocal relationship. The literature until now, has perhaps surprisingly, almost completely ignored this possibility. We identified only one study (Heaton 2006) that addressed a bidirectional relationship—religion influencing crime and vice versa, and only one other work that considered that criminal behaviors or attitudes could shape religion (Camp et al. 2006). The overwhelming number of studies, in other words, only investigated if religion impacted crime and ignored the possibility of crime or deviant attitudes influencing religious beliefs.

Almost 30 years ago, Thornberry's (1987) important theoretical statement noted that a major limitation of the overall field of criminology at that point was

that it only considered uni-directional relationships between crime and other attributes. He pointed out that leading criminology frameworks then did not consider that many factors (e.g., unemployment) besides being a possible predictor of offending, could also be an outcome of it. [Thornberry \(1987\)](#) argued that it was, in fact, likely that reciprocal relationships (i.e., each influencing the other) were at play and he incorporated this possibility into his interactional theory of delinquency. Subsequent studies also explored reciprocal relationships between crime and other attributes and uncovered nuanced findings that despite their theoretical importance also had policy implications. It is time for the religion and crime literature to likewise fully engage the possibility of reciprocal relationships between outcomes and key predictor variables.

Relatedly, future research should consider how precisely religion (i.e., the causal mechanisms) influences criminal behavior. It is likely that religious attributes have varying impact on criminal activity depending upon the context and the processes that unfold. Johnson and Jang (2012) note that religion may promote conformity through fear (e.g., eye for an eye) or social cohesion. [Cullen \(2012\)](#) counters that religious belief that stress a loving God may promote conformity via positive self-identity. In both cases, religion acts to undermine crime but the causal mechanisms are different. Criminology theories also, obviously, stress different causal mechanisms thus explicitly incorporating religion into their models would begin to address this point. In addition, criminologists should expand the domain of outcomes they study. Terrorism scholars have long highlighted the importance of religion ([Jurgensmeyer 2003](#); [Stern 2003](#); [Hewitt and Kelley-Moore 2009](#)) and usually include it as a key construct in their empirical studies. On the micro level, for example, some have argued that nonreligious persons imprisoned for their crimes who undergo a prison conversion may adopt a positive self-image that decreases the likelihood of recidivism. It is also argued that a prison religious conversion could result in “radicalization” that increases an offender’s likelihood of engaging in future political violence ([Hamm 2009](#)). It is important then to study how religious mechanisms might be positively related to terrorism, while simultaneously acting to inhibit regular criminal activity. There are, of course, likely to be differences across religious denominations, and across personality types, which again suggest that biological and psychological criminological perspectives could be better used by religion and crime scholars. In short, there is a need to investigate contextual influences and to highlight the importance of nuance.

Our findings also show that a lot more could be done to study religion and crime in terms of better data, and theoretical sophistication. We found that most macro-level studies only included the type of religion (i.e., affiliation) in their models while micro-level studies also included measures of religious involvement or strength of religious belief. Macro-level studies could not include such measures because, as noted, there are no easily obtainable data for strength of religious belief or involvement at this level. Having such measures though, would allow for more refined empirical tests of theoretical constructs. It would be incredibly useful to know, for example, the overall level of county religious salience.

It is also clear that there needs to be a greater focus on causality in the study of religion and crime. We located only one study that used an experimental design (Smith, Rozzo, and Empie 2005). All the other studies, therefore, faced difficulties in concluding that religion *causes* the crime-related outcome and vice versa. Importantly, bringing these gaps to the attention of policy makers and funding agencies and embarking upon a collective sustained campaign to create government funded initiatives focused on gathering such data and/or employing such designs and analytic strategies could prove beneficial.

The terrorism field lagged for years methodologically behind criminology and forensic psychology, which on a whole were more rigorous fields. One reason for this disparity was that many terrorism scholars did not have access to appropriate data sources (Silke 2001). After the attacks on 9/11 though there was increased scholarly focus, and importantly financial investments by the United States and other governments in terrorism research. This led to the collection of new data that resulted in the creation of terrorism event, offender, and organization databases (Asal and Wilkenfeld 2013; Freilich et al. 2014; LaFree, Dugan, and Miller 2015). These databases were used to investigate a series of important issues including some for the first time. Significantly, both the quantity and quality of scholarship increased (Silke 2008; Silke and Schmidt-Petersen 2015). Although resources are always limited, a sustained effort by religion and crime scholars to devise a listing of the most pressing data gaps that are then presented to relevant stakeholders could provide similar benefits.

It was also interesting that one of the three most popularly used theories to study religion and crime was religious contextual effects and the macro-level moral community thesis, which originated from the sociology of religion discipline. Only 15 percent of studies used social disorganization, perhaps criminology's most prominent current macro-level approach and even fewer used routine activities, another ecological framework. Very few studies attempted to integrate moral communities with social disorganization and routine activities, even though their common unit of analysis could provide an opening to do so. Criminologists should thus consider how to introduce their theories to the community of sociology of religion scholars to increase the impetus to integrate approaches across disciplines. Constructs that are similar across both fields could be included in a single model that uses the same measures. Subcultural theories from criminology are an example of an approach that could be synthesized with aspects of the moral community thesis. Both frameworks highlight the importance of community values (albeit in varying ways).

There are some limitations to this study that warrant mention. This study was primarily interested in attitudes and behaviors that could be classified as either criminal or delinquent. We wanted to code the full population of articles, instead of just a sample, for the study period. We, therefore, limited our search to a handful of terms, largely focused on delinquency, crime, faith, religion, and spirituality. A larger set of terms, such as deviance, substance use, truancy, robbery, murder, and terrorism, could have also been used, but this would have resulted in many more

articles. Future research might consider examining a larger set of terms, though coding all of them by hand is a laborious process. A longer period of time could have also been used, which would have made it possible to look at changes over time in the use of theory, methods, and datasets.

Our study relied solely on journal articles and some empirical studies are published in books, book chapters, and reports. As discussed previously, there are a number of reasons why we made this decision. Nevertheless, there is likely some bias in our findings as they relate to understanding research being conducted in the larger field. Like many other reviews that have been done on religion and crime (Weaver, Flannelly, and Strock 2004; Yeung, Chan, and Lee 2009) our study also suffers from a “file drawer” problem. This is the bias introduced when only published studies, which tend to neglect negative or nonconfirmatory findings, are included. We found that the overwhelming majority of studies examining religion and crime find that the two factors are significantly related to each other. Because of the file drawer problem, this is likely an overestimate. Since several more recent studies (Baier and Wright 2001; Weaver, Flannelly, and Strock 2004; Yeung, Chan, and Lee 2009; Yonker, Schnabelrauch, and DeHaan 2012; Kelly et al. 2015) have also found a significant relationship between religion and crime and have considered effect sizes, our review tried to go further than this other work in providing information on the most popular theories, causality, how researchers typically hypothesize the relationship, the measures used, and so forth.

In sum, this article systematically reviewed research on religion and crime that was published in social science journals over 10 years. We found that while major criminology and social science journals have published this work, they made up only a small amount of the overall number of studies they published. We provided information on study characteristics including the most used dimensions of crime and religion, how the direction of the relationship was theorized, and the most used databases, methods, and theories. Our findings reveal not only the methodological limitations in current research, but also the rich theoretical potential in work on religion and crime.

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APPENDIX A1. Articles Included in Analysis and Sample Characteristics
(*N* = 92)

Name	Date	Methodology	Use of time	Age of sample	Population of interest
Adamczyk	2012	Survey	Longitudinal	Adolescents	General
Adorjan and Chui	2012	Interview/In-depth interview	Cross-sectional	Adults	Criminals/Ex-criminal
Akpulu	2011	Survey	Cross-sectional	Adults	General
Amato	2012	Survey	Cross-sectional	Adults	Criminals/Ex-criminal
Ammar and Weaver	2006	Interview/In-depth interview	Cross-sectional	Adults	Criminals/Ex-criminal
Baier	2014	Survey	Cross-sectional	Adolescents	General
Bakken et al.	2014	Survey	Longitudinal	Adults	Criminals/Ex-criminal
Bardi and Malfitano	2014	Participation observation	Longitudinal	Adults	Treatment group
Bauermeister et al.	2007	Survey	Cross-sectional	Adults	General
Beyerlein and Hipp	2005	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Botchkovar et al.	2009	Survey	Cross-sectional	Adults	General
Bouffard and Petkovsek	2014	Survey	Cross-sectional	Adults	Criminals/Ex-criminal
Brauer et al.	2013	Survey	Cross-sectional	Adults	General
Brinig and Garnett	2012	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Camp et al.	2006	Survey	Longitudinal	Adults	Criminals/Ex-criminal
Caputo	2009	Survey	Cross-sectional	Adolescents	General
Caputo	2004	Survey	Longitudinal	Adolescents	General
Connolly and Woollons	2008	Survey	Cross-sectional	Adults	Criminals/Ex-criminal

Continued

(Continued)

Name	Date	Methodology	Use of time	Age of sample	Population of interest
Corcoran and Robbins	2012	Survey	Cross-sectional	Geographic locations	General
Crano et al.	2008	Survey	Longitudinal	Adolescents	General
Davignon	2013	Survey	Longitudinal	Adolescents	General
Deol	2014	Case studies	Cross-sectional	Combination	Other
Desmond et al.	2009	Survey	Longitudinal	Adolescents	General
Desmond et al.	2011	Survey	Longitudinal	Adolescents	General
Desmond et al.	2010	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Dodson et al.	2011	Nonsurvey quantitative data	Cross-sectional	Combination	Criminals/Ex-criminal
Duvall et al.	2008	Survey	Longitudinal	Adults	Criminals/Ex-criminal
Eisner and Ghuneim	2013	Survey	Cross-sectional	Adolescents	General
Eitle	2011	Survey	Cross-sectional	Adults	General
Eshuys and Smallbone	2006	Survey	Cross-sectional	Adults	Criminals/Ex-criminal
Esmail and Penny	2013	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Feinstein et al.	2006	Survey	Longitudinal	Combination	General
Fetherston and Simon	2005	Survey	Cross-sectional	Combination	General
Firestone et al.	2009	Nonsurvey quantitative data	Cross-sectional	Adults	Criminals/Ex-criminal
Gensheimer et al.	2010	Case studies	Cross-sectional	Adults	General
Giordano et al.	2008	Survey	Longitudinal	Combination	Criminals/Ex-criminal
Gjelsvik and Bjorgo	2012	Interview/In-depth interview	Cross-sectional	Adults	Criminals/Ex-criminal
Gockel and Burton	2013	Survey	Cross-sectional	Adolescents	Criminals/Ex-criminal

Guse and Hudson	2014	Interview/In-depth interview	Cross-sectional	Adults	Criminals/Ex-criminal
Hancock et al.	2013	Interview/In-depth interview	Cross-sectional	Adults	Criminals/Ex-criminal
Heaton	2006	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Holligan and Deuchar	2009	Interview/In-depth interview	Cross-sectional	Adolescents	General
Irmak	2012	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Jabobs and Carmichael	2004	Nonsurvey quantitative data	Cross-sectional Longitudinal	Geographic locations	General
Jacques and Taylor	2013	Nonsurvey quantitative data	Cross-sectional	Adults	Criminals/Ex-criminal
Jang and Franzen	2013	Survey	Cross-sectional	Adults	General
Jang and Johnson	2005	Survey	Cross-sectional	Adults	General
Jones	2007	Interview/In-depth interview	Cross-sectional	Combination	Criminals/Ex-criminal
Joseph	2006	Interview/In-depth interview	Cross-sectional	Adults	General
Kabiru et al.	2013	Survey ^a	Cross-sectional	Combination	General
Kim	2006	Survey	Longitudinal	Adolescents	General
Lee	2006	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Lee and Ousey	2005	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General

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Name	Date	Methodology	Use of time	Age of sample	Population of interest
Letiecq	2007	Survey	Cross-sectional	Adults	General
Mancini and Shields	2014	Survey	Cross-sectional	Adults	General
McVeigh	2006	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Miller and Kim	2012	Survey	Longitudinal	Adults	General
Moitra and Mukherje	2010	Survey	Cross-sectional	Adolescents	Both
Ndubueze et al.	2013	Survey	Cross-sectional	Combination	General
Newman	2007	Survey	Cross-sectional	Adolescents	General
Nuchhi et al.	2012	Nonsurvey quantitative data	Cross-sectional	Adults	Other
Park et al.	2010	Survey	Longitudinal	Adolescents	General
Pearce and Haynie	2004	Survey	Longitudinal	Adolescents	General
Petts	2009	Survey	Longitudinal	Combination	General
Petts and Knoester	2007	Survey	Longitudinal	Combination	General
Piputinsky	2014	Survey	Longitudinal	Adolescents	Criminals/Ex-criminal
Regnerus and Smith	2005	Survey	Longitudinal	Adolescents	General
Roberts et al.	2011	Survey	Cross-sectional	Adults	Both
Romano et al.	2013	Survey	Cross-sectional	Adults	General
Ryan et al.	2008	Survey	Cross-sectional	Adolescents	General
Salas-Wright et al.	2012	Survey	Cross-sectional	Adolescents	General
Salas-Wright et al.	2014	Survey	Cross-sectional	Combination	General
Schoeneberger et al.	2006	Survey	Longitudinal	Adults	Treatment group
Schroeder and Frana	2009	Interview/In-depth interview	Cross-sectional	Adults	Criminals/Ex-criminal

Shihadeh and Winters	2010	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Simons et al.	2004	Survey	Cross-sectional	Adolescents	General
Smith, Rozzo, and Empie	2005	Experiment/Quasi experiment	Cross-sectional	Adults	General
Spivak et al.	2011	Survey	Cross-sectional	Adults	General
Stack and Kposowa	2006	Survey	Cross-sectional	Adults	General
Stevens-Watkins and Graves	2011	Survey	Longitudinal	Combination	General
Suresh and Tewksbury	2013	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Taieb et al.	2012	Interview/In-depth interview	Cross-sectional	Adults	Treatment group
Triplett et al.	2013	Nonsurvey quantitative data	Cross-sectional Longitudinal	Geographic locations	General
Ulmer and Harris	2013	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Ulmer et al.	2012	Survey	Longitudinal	Adolescents	General
Vogel and Fradella	2012	Survey	Cross-sectional	Adults	General
Wallace et al.	2005	Survey	Cross-sectional	Adolescents	General
Wallace et al.	2007	Survey	Cross-sectional	Adolescents	General
Walther and Poston	2004	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Weisheit and Wells	2010	Nonsurvey quantitative data	Cross-sectional	Geographic locations	General
Wu et al.	2011	Survey	Cross-sectional	Adolescents	Treatment group
Yates	2014	Case studies	Cross-sectional	Combination	Criminals/Ex-criminal

^aindicates mixed method

APPENDIX A2. The Categories of the Datasets Used by Each Article that Implemented Secondary Data

Categories	Name of dataset	Numbers of articles
Youth & Family	British Birth Cohort Study (BCS)	1
	Illinois Department of Children and Family Services (DCFS)	1
	Iowa Youth and Families Project (IYFP)	1
	Monitoring the Future (MTF)	1
	National Longitudinal Survey of Youth (NLSY)	4
	National Survey of America's Families (NSAF)	1
	National Survey of Families and Households (NSFH)	1
	National Survey of Parents and Youth (NSPY)	1
	National Youth Survey (NYS)	2
	Nationwide Survey of School Pupils in Germany	1
	Ohio Lifecourse Study (OLS)	1
	Youth, Education, and Society (YES)	1
Crime	Crime Data from the Indianapolis Police Department	2
	Crime Reporting System from California, New York, Texas	1
	DEA's National Clandestine Laboratory Registry	1
	Department of Forensic Medicine	1
	NVSS-Mortality Multiple Cause-of-Death Data File	1
	Pathways to Desistance Study	1
	Police Call Data from the Louisville Metro Police Department	1
	Returning Home	1
	Royal Canadian Mounted Police (RCMP) crime reports	1
	Supplementary Homicide Reports (SHR)	1
	The Juvenile Justice Data	1
	The Transitions to Adulthood Project (TTA)	1
	Turkish National Police Data	1
	Uniform Crime Report (UCR)	6
Health	Add Health- The National Longitudinal Study of Adolescent Health	8
	Family and Community Health Study (FACHS)	1
	National Survey on Drug Use and Health (NSDUH)	2
Religion	Church Data from the Polk City Directories	1
	Congregational Data by the Indianapolis Center for Congregations	1
	County and City Data Book (Religion Adherence Rates)	1
	National Study of Youth and Religion (NSYR)	1
	Religious Congregations and Memberships Survey (RCMS)	7
	The Official Catholic Directory	1

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Categories	Name of dataset	Numbers of articles
Macro Data	CIA World Factbook	1
	Economic Freedom of the World Project	1
	Project on Human Development in Chicago Neighborhoods (PHDCN)	1
	U.S. Census	9
	CBS News/New York Times Poll	1
General Data	National Survey of Black Americans (NSBA)	1
	World Values Survey (WVS)	2
	Others	2

Note: Each article could have used up to three different datasets.